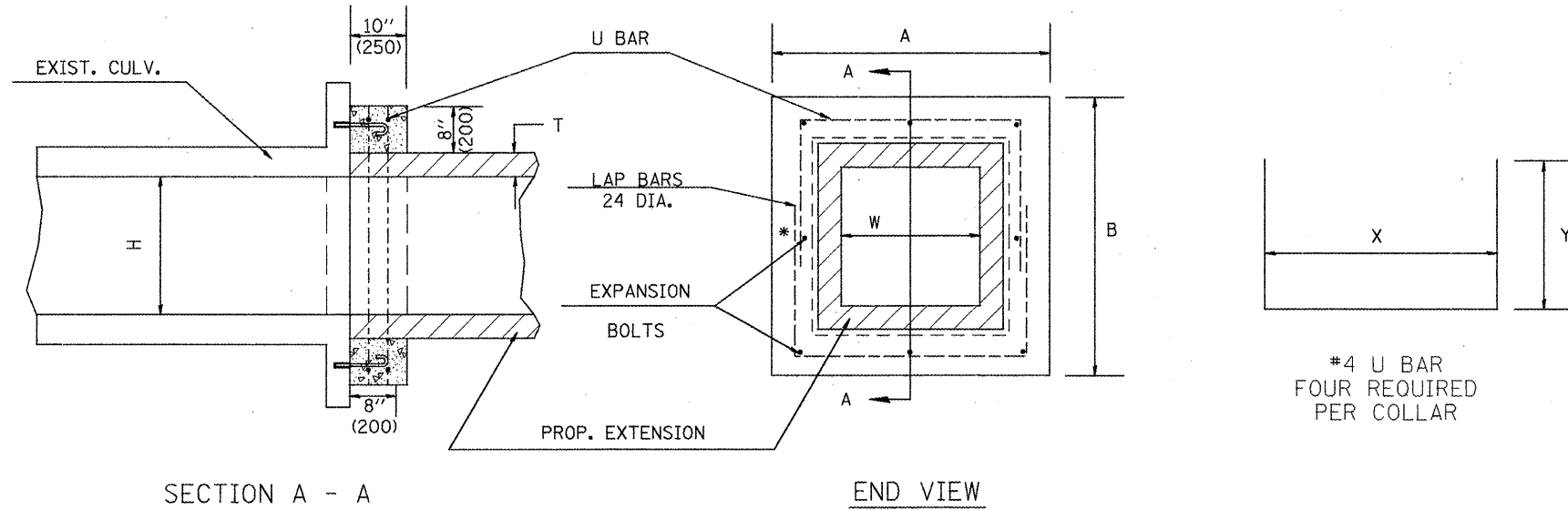


* MINIMUM 1' LAP ON U BARS



GENERAL NOTES

1. The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of section 503 of the Standard Specifications. REINFORCEMENT BARS shall conform to section 508.
2. Expansion bolts shall consist of approved expansions anchors, and 3/4" (M20) hook bolts which conform to Section 1006.09. These bolts shall extend at least 8"(200) into the new concrete.

* Dimensions for ASTM C789.

DIMENSIONS

| EXISTING BOX | | A | B | T * | EACH COLLAR | | | | |
|--------------|--------------|----------------|----------------|--------|----------------------------------|--------------------|----------------|-----------------|----|
| W ft (mm) | H ft (mm) | | | | CL SI CU YD (m ³) | REINFORCEMENT BARS | | EXPANSION BOLTS | |
| | | | | | X | Y | POUNDS (kg) | NO. | |
| 2 (600) | 2 (600) | 4'-0" (1.22m) | 4'-0" (1.22m) | 4(100) | 0.27(0.21) | 3'-4" (1.02m) | 26(660) | 20 (9) | 8 |
| 3 (900) | 2 (600) | 5'-0" (1.52m) | 4'-0" (1.22m) | 4(100) | 0.32(0.24) | 4'-4" (1.32m) | 26(660) | 23 (10.5) | 8 |
| 3 (900) | 2.5 (750) | 5'-0" (1.52m) | 4'-6" (1.37m) | 4(100) | 0.34(0.26) | 4'-4" (1.32m) | 29(737) | 24.5 (11) | 8 |
| 3 (900) | 3 (900) | 5'-0" (1.52m) | 5'-0" (1.52m) | 4(100) | 0.36(0.28) | 4'-4" (1.32m) | 32(813) | 26 (12) | 8 |
| 3 (900) | 4 (1200) | 5'-2" (1.57m) | 6'-2" (1.88m) | 5(125) | 0.41(0.31) | 4'-6" (1.37m) | 39(991) | 29 (13) | 10 |
| 4 (1200) | 3 (900) | 6'-2" (1.88m) | 5'-2" (1.57m) | 5(125) | 0.41(0.31) | 5'-6" (1.68m) | 33(838) | 29 (13) | 10 |
| 4 (1200) | 4 (1200) | 6'-2" (1.88m) | 6'-2" (1.88m) | 5(125) | 0.45(0.34) | 5'-6" (1.68m) | 39(991) | 32 (14.5) | 12 |
| 4 (1200) | 5 (1500) | 6'-4" (1.93m) | 7'-4" (2.24m) | 6(150) | 0.51(0.39) | 5'-8" (1.73m) | 3'-10" (1.17m) | 36 (16) | 14 |
| 5 (1500) | 4 (1200) | 7'-4" (2.24m) | 6'-4" (1.93m) | 6(150) | 0.51(0.39) | 6'-8" (2.03m) | 3'-4" (1.02m) | 35 (16) | 14 |
| 5 (1500) | 5 (1500) | 7'-4" (2.24m) | 7'-4" (2.24m) | 6(150) | 0.55(0.42) | 6'-8" (2.03m) | 3'-10" (1.17m) | 38 (17) | 16 |
| 5 (1500) | 6 (1800) | 7'-6" (2.29m) | 8'-6" (2.59m) | 7(175) | 0.60(0.46) | 6'-10" (2.08m) | 4'-5" (1.35m) | 42 (19) | 16 |
| 6 (1800) | 4 (1200) | 8'-6" (2.59m) | 6'-6" (1.98m) | 7(175) | 0.56(0.43) | 7'-10" (2.39m) | 3'-5" (1.04m) | 39 (18) | 14 |
| 6 (1800) | 5 (1500) | 8'-6" (2.59m) | 7'-6" (2.29m) | 7(175) | 0.60(0.46) | 7'-10" (2.39m) | 3'-11" (1.19m) | 42 (19) | 16 |
| 6 (1800) | 6 (1800) | 8'-6" (2.59m) | 8'-6" (2.59m) | 7(175) | 0.64(0.49) | 7'-10" (2.39m) | 4'-5" (1.35m) | 44.5 (20) | 16 |
| 6 (1800) | 8 (2400) | 8'-8" (2.64m) | 10'-8" (3.25m) | 8(200) | 0.74(0.57) | 8'-0" (2.44m) | 5'-6" (1.68m) | 51 (23) | 18 |
| 8 (2400) | 8 (2400) | 10'-8" (3.25m) | 10'-8" (3.25m) | 8(200) | 0.82(0.63) | 10'-0" (3.05m) | 5'-6" (1.68m) | 56 (25.5) | 20 |

QUANTITIES

CALC. BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION; DOCUMENTATION SECTION

All dimensions are in inches (millimeters) unless otherwise noted.

| | | | | | | | | | | | |
|----------|--|------|--|--|---|-----------------------------------|--------------------|-----------------------|--------|--------------|-----------|
| 01-01-97 | RENUM. J-12.01, METRICS, NEW REVISION BOX, REVISED | T.P. | | | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | COLLAR FOR BOX CULVERT EXTENSIONS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | TITLE BOX, ADDED QUANTITY CALCULATION BOX | | | | | | 317 | 16W-2,RS-4+17W-1,RS-3 | FULTON | 240 | 136 |
| 10-16-06 | REV. TO 2007 SPEC., REINF. BARS COL. | M.A. | | | | | CONTRACT NO. 88703 | | | | |

NOT TO SCALE

CADD STD. 540001-D4

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT